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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,824	08/30/2000	Robert H. Martter	FEC-11704	1229

7590 01/30/2002  
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EXAMINER

VU, QUYNH NHU H

ART UNIT PAPER NUMBER

2827

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/650,824

Applicant(s)

MARTTER ET AL.

Examiner

Quynh-Nhu H. Vu

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

It is noted that the following rejections are same as previous office action.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mancini [US 3,654,583].

Mancini discloses in Figs. 2-3 a connecting an external electrical conductor to electrical circuit device comprising: metal substrate (44) having an aperture (38) formed therein; a hollow mechanical fastener (20, 26, 28) through the aperture; mechanically fastening the fastener to the metal substrate (44) so as to form an eyelet (10, see Fig. 2); the external electrical conductor (60) inserted into the eyelet; a solder (68) applied to the external electrical conductor and the eyelet. Applicant defines the porcelain enameled metal substrate that a metal base with an porcelain enamel covered around the metal base. Mancini discloses a metal substrate without covers porcelain enamel. However, it is well known in the art to use to metal substrate coated with a porcelain-enameled material commonly referred to as porcelain enameled metal substrates as the applicant admitted in the Background of the Invention on page 1 lines 10-15.

As to claim 2, the external electrical conductor (60) is a wire.

As to claims 3 and 7, Mancini discloses all claimed subject matter except that the eyelet is comprised of brass. However, it is well-known in the art to use the eyelet made of brass for

Art Unit: 2827

cost of saving and more retaining the eyelet in the lead and base substrate. Furthermore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the eyelet made of brass, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

As to claims 4 and 8, the eyelet is electrically connected to a conductor (46) on a surface of the electrical circuit device.

As to claims 5 and 9, the eyelet is soldered to one surface of the electrical circuit device.

As to claim 6, the external electrical conductor (60) is a lead to an electronic component.

As to claim 10, the fastener to the metal substrate comprises crimping the fastener to the metal substrate.

As to claim 11, Mancini discloses in Figs. 2-3 a circuit device comprised of a metal substrate (44) having a conductive circuit (46) formed thereon and an external electrical conductor (60) attached thereto comprising a metal base (44) coated with dielectric layer (42, it is noted that it is well-known in the art the dielectric materials such as porcelain enamel as applicant admitted in a specification on page 4, line 12) and an aperture (38) formed in the base, the aperture (38) having mounted thereon a fastener (20, 26, 28), the electrical conductor (60) being soldered to the fastener.

As to claim 12, the external electrical conductor (60) comprises a length of flexible copper wire.

As to claim 13, the fastener is mechanically crimped to the metal substrate (44).

As to claim 14, since an insulating sheath (24) is between the fastener and the metal substrate (44). Therefore, the fastener is electrically insulated from the metal substrate.

As to claim 15, Mancini discloses that the metal substrate (44) made of aluminum. However, Mancini does not disclose that the metal substrate (44) comprises low carbon steel. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the eyelet made of brass, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

As to claim 16, the fastener is electrically connected to the conductive circuit (46).

As to claim 17, the dielectric (24, 42) or porcelain enamel metal substrate includes two major surfaces, and the conductive circuit (46) is formed on both of the major surfaces.

As to claim 18, Mancini discloses in Figs. 2-3 that a circuit device comprised of a metal substrate having a conductive circuit (46) formed on each side of the substrate comprising a metal base (44) coated with dielectric layer (42, please see explain in claim 11 above) and an aperture (38) formed in the base (44), the aperture having mounted therein a fastener (20, 26, 28), the fastener electrically connecting the conductive circuits (46) formed on each side of the substrate.

#### ***Response to Arguments***

3. Applicant's arguments filed 1/14/02 have been fully considered but they are not persuasive:

Applicant argues that the Mancini reference does not disclose or suggest applicant's claimed invention. There is absolutely no motivation or suggestion in the prior art to modify the plastic, insulative layer 42 of Mancini so as to provide a porcelain enamel layer.

In response, examiner was asserted in the previous office action (on lines 8-10 of paragraph 5) or (rejection 103 above on lines 8-10 of paragraph 2) that applicant defines the

porcelain enameled metal substrate that a metal base with a porcelain enamel covered around the metal base. Mancini discloses a metal substrate (44) without covered with porcelain enamel. However, it is well known in the art to use to metal substrate coated with a porcelain-enameled material commonly referred to as porcelain enameled metal substrates as the applicant admitted in the Background of the Invention on page 1 lines 10-15.

Furthermore, the examiner did not consider the plastic insulative layer 42 as the porcelain enamel layer as applicant mentioned above.

#### **Conclusion**

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 703-305-0850. The examiner can normally be reached on 7:30-5:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on 703-305-9883. The fax phone numbers for the

Application/Control Number: 09/650,824

Page 6

Art Unit: 2827

organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

QNV

January 24, 2002



Kuro

Primary Examiner